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ABSTRACT

The purpose of the study is to present a descriptive report of the difficulties and successes in the first eight months of the development of a Learning Center in Northwood Junior High School in Highland Park, Illinois. The report is intended to contribute information which will be helpful to others whose task it is to develop Learning Centers. The author provides a physical description of the Learning Center and the environment in which it was developed, discusses the financing of and the activities in the Center, and reviews literature relating to the development of the Center. A variety of topics are reviewed that concern planning the Center and individual projects that are significant aspects of the program. One chapter provides an overview of the program change and progression, with facsimiles of monthly reports, forms, processes, and diary excerpts included. A bibliography is provided. (Author/DN)

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THE DEVELOPMENT OF A SUBURBAN JUNIOR HIGH SCHOOL
LEARNING CENTER

Janet W. Freund
March, 1973

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Chapter 1.

Decisions

Purpose of the Study

The purpose of the study is to present a descriptive report of the first eight months of the development of a Learning Center in Northwood Junior High School in Highland Park, Illinois. The report is intended to contribute information which will be helpful to others whose task it is to develop Learning Centers.

Decisions must be made concerning what students should come to the Learning Center, how long they should stay, how and for what reason they are referred, what requirements they will be expected to meet, what activities they will engage in, with what personnel and with what materials, and how outcomes will be evaluated and the process modified. Supportive issues surrounding the decisions require exploration. The relationships with other professionals in the school, lines of responsibility, requirements and objectives of reports, records and public relations require consideration.

A current phenomenon in education in the United States is the development of alternative schools and curricula. The Learning Center may be a vehicle for innovation. Decisions concerning type and extent of change are necessary.

During this period, Mr. Gregg Hannah, an eighth grade teacher produced an eight millimeter sound movie of the Learning Center. It is anticipated that the film and this manual may serve the following purposes:

1. Provide Boards of Education, parent and teacher groups an overview of the various options for a Learning Center.
2. Provide staffs an opportunity to examine possible roles of Learning Centers.
3. Provide administrators and other interested individuals an overview of the utilization of a differentiated staff in a Learning Center including the roles of coordinator, paraprofessionals, community, student and other volunteer aides.
4. Provide examples of development of individualized instruction in a Learning Center.
5. Provide examples of curriculum extension and alternatives through such projects as pre-careers, courtyard and community art.

Description of Terms

The Northwood Learning Center is located in the Northwood Junior High School which is one of three schools in District 111 in the communities of Highland Park and Highwood, Illinois. The two underlying elementary schools are Oak Terrace and Wayne Thomas. High School District 113 serves two parochial schools and six public school districts including District 111.

The 558 students attending Northwood come from homes with socioeconomic patterns ranging from low to very high and share a variety of racial and cultural characteristics. The military installation of Fort Sheridan is within the district and currently sends 430 students to District 111 and 135 to Northwood School.

Because of the student population from Fort Sheridan, the district is classified as an impacted area and as such has qualified for federal funds. The construction of the Learning Center was made possible by such funds and cost \$174,000.00. According to the Highland Park News (9/9/71) the assessed valuation of \$24,270.00 ranked the lowest of the eight adjacent districts. The tax rate of \$1.90 placed the district at rank seven in relation to the others. The expenditure of \$985.00 per pupil was the lowest of the eight districts. A referendum for an increase of 25 cents per one hundred dollars for the building fund was passed in December of 1971.

With the addition of the Learning Center which opened in September, 1971, a center courtyard was enclosed. The Learning Center measures 184 by 42 feet. Prior to the addition of the Center the building was C shaped. A family of rabbits was enclosed by the construction and have provided a continuing source of interest and at time, problems.

During the first five months from September, 1971, the administration of the district and Northwood was quite unstable. Changes included the resignation of the Superintendent, the Principal, the Curriculum Director and three teachers.

Teachers were in negotiation with the Board of Education from 1970 and in March, 1972 requested an attorney to file suit to gain the salary increments which had not been paid.

Decisions made regarding the operation and goals of the Learning Center, teacher attitudes and responsiveness cannot be viewed in isolation from the turmoil and strain involved. Change became accepted and anticipated and while the climate was often tense, the fact of change was not a problem.

The facility of the Learning Center was constructed prior to the coordinator's employment. The physical setting was identified as a Learning Center but actually would be more accurately described as a multi-media or resource center. The materials in the facility included audio-visual materials, educational games, areas for work provided with butcher top tables and areas for study or small groups. Offices within the Learning Center complex were identified to house teachers of remedial reading, English as a second language, learning disabilities and the coordinator's office.

The primary function of the Learning Center as seen by administrators and staff was to serve as a place for students to attend on a regular basis and to which students could be referred for special needs, and audio-visual resources.

The theme established in the Learning Center was four L's representing Learning, Leisure, Labor and Love. The projects

developed sometimes emanated from the classroom teacher and sometimes from the Center. In either case the content flowed in both directions. Learning was implemented in a variety of ways. Teachers had access to audio-visual equipment which could be used either in the classroom or the Learning Center. Prescriptions for film strips, slides, tapes, cassettes and records were made jointly by student and teacher and the appropriate materials supplied in the Learning Center.

Another type of learning supported in the Center was typified during the Science Fair. Students came to the Center to print science posters, to conduct science experiments and do surveys. A third type of learning was developed by classroom teachers and carried out cooperatively with Learning Center staff or supervised volunteers. That was individualized instruction primarily focused on special needs or interests for gifted or the less successful student. Alternate curriculum options often evolved from this type of program.

Leisure theme projects developed as a response to a changing society in which young adults might anticipate working a shorter work day week and would benefit from hobbies and avocational interests. Courtyard projects dealing with landscape, ecology and gardening were fostered. Local artists, sculptors, dramatists, stamp and coin collectors and other knowledgeable and creative people secured through the Volunteer Pool shared

crafts. Games such as bridge, checkers, chess and scrabble are encouraged. Students are permitted to volunteer to work with primary grade students at Wayne Thomas School accessible by an adjoining play field. Volunteering is encouraged because this is seen as a major satisfying leisure time activity of the future. The four L concept is an overlapping one because there are elements of love, learning and labor involved in each leisure activity.

The Labor theme is implemented in a number of ways. Pre-career education lectures are given twice a week. The mini-courses led by experienced volunteers from the Volunteer Pool deal with such topics as aviation, machines, motors, electronics, astronomy and architecture. Typing, arts and crafts, needle crafts and photography are continuously offered by the Learning Center staff.

The Labor theme was developed by the Learning Center with the cooperation of the Volunteer Pool because of two widely prevalent problems. Students are complaining that much of their education is not relevant to the world outside of school. Students are also leaving high schools and colleges with little sense of future direction in relation to the world of work. According to Marland (1971):

Ours is the greatest education system ever devised. But it falls short of our aspirations. We must improve it. We must be concerned with the provision of exciting and rewarding and meaningful experiences for children, both in and out of the formal environment of classrooms. When we use the word 'meaningful' we imply a strong obligation that our young people complete 12 grades in such a

fashion that they are ready either to enter into some form of higher education or to proceed immediately into satisfying and appropriate employment. Further, we now hold that the option should be open to most young people to choose either route (p.26).

It is not intended that students of Junior High School age make decisions about their careers although a few may have done so even earlier. It is anticipated that awareness of the many options available will be afforded them and that some of the relationships between the world of work and education will become apparent.

The theme of Love is identifiable in the helping relationships that are encouraged in the Learning Center. In addition to the student volunteers who help in the primary grades, peer tutoring may be arranged by teachers. Students also may be trained as aides in the Learning Center. They assist with arts and crafts, materials reproduction and in the audiovisual area. They are also learning, laboring and preparing for their future leisure as they acquire these skills.

Free flow and Scheduled in are terms used at Northwood to describe how students are programmed into the Learning Center. The free flow which one might assume to be on a voluntary basis on the part of students is actually on a system of passes signed by teachers for individualized learning activities in which the student has indicated he would like to participate. This may be to use materials or to attend a lecture in the Learning Center.

The apparent contradiction in the term free flow is clarified when the scheduled-in operation is examined. Since all teachers participate in team teaching which requires planning time, students are scheduled to physical education, home economics, industrial art and learning center to accomodate the requirement. From the point of view of the teacher, the unscheduled referrals may be identified as free flow since it is in addition to the scheduled in.

The total population of 558 students are scheduled for two periods a week with their team in the Learning Center. The population in any given scheduled period may be from 50 to approximately one hundred students including the free flow. There are basically five scheduled periods a day and free flow any of the six periods of the school day.

Goelzer (1968) defined the role of the Highland Park Volunteer Pool:

Legally, it is a not-for-profit organization, incorporated under the laws of Illinois and certified as eligible for income tax deductible contributions by the Internal Revenue Department of the United States. More descriptively, it is a community service organization, dedicated to the dual purpose of finding satisfying volunteer assignments for individuals and responsible volunteers for jobs in schools and other public agencies in the community. It is almost 600 men and women ranging from under 25 to 75 years of age. In their skills, experience, and interests, they represent the arts, professions, teachers, housewives, craftsmen, secretaries, travellers, collectors. We used to be called the Volunteer Talent Pool. You may have noticed that we've dropped the word 'talent' from our name. Somehow, our concept of the most valuable talent of all -- the ability to care and to communicate -- just wasn't getting across to modest people who thought they had no talents. We decided that our name was scaring too many of them away, so we changed it.

Goelzer (1970) reported that 164 different individuals plus eight coordinators gave a total of 4,004 hours of volunteer service to the area schools. During the 1971-72 school year, over 1,000 volunteer hours were devoted to Northwood Junior High School alone.

The Highland Park Pool is one of a large network of pools extending around the Chicago area and in various communities all over the United States. There are a number of unique features of these Pools. They are general recruiting services for community volunteers in contrast with pools which serve just one agency, for example, a hospital, or which draw from just one group for volunteers.

Burgoon and Winter (1967) explain that it is inefficient for each agency to do its own recruiting and that the centralized pool saves time of the professional and the volunteer.

Freund (1968) describes another requirement of this type of volunteer service, that of having a coordinator responsible for the volunteer program in each agency served.

The variety and depth of projects in the Northwood Learning Center was made possible by the Volunteer Pool of Highland Park in cooperation with the school staff.

Organization of the Study

At the conclusion of each chapter issues will be raised to facilitate planning and development of Learning Centers elsewhere. References are cited at the conclusion of chapters.

Chapter two reviews literature relating to the development of the Learning Center. The variety of topics reviewed are concerned with planning the Center and with individual projects which became significant aspects of the program.

Chapter three contains an overview of change and progression of the program in the Northwood Learning Center. Monthly reports, forms, processes, diary excerpts comprise this chapter.

Chapter four contains conclusions and recommendations. Examples referred to in the text may be found in the appendix. The bibliography concludes this descriptive study.

Summary of Issues in Developing a Learning Center

- a. Does the title of the Learning Center describe its function accurately?
- b. Does the physical facility match the function?
- c. Were those individuals responsible for identification of function involved in the design of the structure?
- d. To what extent do goals depend on deficits in the system?
- e. Is the Learning Center responsive to changing needs?
- f. Does the flow of projects emanate from the Center, teachers, students, administrators?
- g. Who develops individualized prescriptions?
- h. How is scheduling arrived at?
- i. What arrangements facilitate communication between the Learning Center and the classroom?

Chapter References

- Burgoon, J., Winter, J. Operating manual for a volunteer talent pool. Winnetka, Ill.: 1967.
- Freund, J., A guide for co-ordinators of volunteers and volunteer services in schools. Bethesda, Md.: ERIC 031447, 1968.
- Goelzer, V., Volunteer pool of Highland Park. unpublished reports
2031 Sheridan Road, Highland Park, Ill.: 1969, 70.
- Highland Park News. Pioneer Press, Highland Park, Ill.: Vol. 47
No. 17, 9/9/71.
- Marland, S. P., The condition of education in the nation.
American Education, 7, 1971, preprint.

Chapter 2

Review of Related Literature

The literature reviewed has been divided into four sections. Section 1 deals with information specifically concerned with Learning Centers and includes review of tapes, visits and conferences as well as literature.

Section 2 relates to review of some of the literature concerning middle schools and the impact of educational change.

Section 3 deals with processes relating to student behavior and the potential for change through the Learning Center concept.

Section 4 identifies some literature in relation to the Northwood Learning Center theme of the four L's, Learning, Leisure, Labor and Love.

Learning Center References

Bowman (1970) views a learning center as an ideal setting to serve as a melting pot for various academics and related activities. The responsibilities of the director are closely integrated with the instructional program of the school and specific educational objectives are to be promoted in each learning activity. The director is expected to familiarize students and teachers with media, arrange for a flexible workable schedule, interpret the program to visitors and plan and direct inservice activities.

Bowman allocates responsibility to the learning center aides to maintain enrollment records, inventory control, train participants in audiovisual skills, maintain and review records and arrange for bulletin board and other displays.

According to Teachey and Carter (1971) and Gurske (1971), the operation and concept of the learning center is basically that of an audiovisual library containing programmed material which is made available to students on an individualized basis. Prescriptions are made in response to test data according to this concept. McQueen (1969) also supports this concept and recommends staff utilization to assist students in developing study skills and acting as resource persons in the classrooms and with teaching teams. McQueen describes a variety of school learning center programs. Fountain Valley (California) resource center is the hub about which the total school program and the physical plant are planned. New Providence (Rhode Island) has four instructional materials centers strategically located near the appropriate classrooms and an open concept library. Pattonville (Missouri) has thirteen well developed centers and a staff of eight librarians trained in audiovisual education. Aurora, (Illinois) utilizes paraprofessionals, students, volunteers, and mothers to assist in learning centers in each building.

Ofiesh (1970) urges that the library facility be operated in close conjunction with the learning center and that the librarians incorporate the skills necessary for individualized

prescribed instruction, with retraining as necessary.

Richardson (1966) reports on a less structured Learning Laboratory experience which permits student and teacher experimentation with individuals and groups of varying sizes, cutting across grade levels and staffed by professionals, aides and volunteers. This center is viewed as a link between research and the classroom and is committed to innovation while retaining the positive features of the traditional classroom.

Palmer and Jensen (1971) describe a learning center on the Wilson campus school at Mankato, (Minnesota) State College which is the hub of a Kindergarten through twelve school where students identify areas of study, teachers and teacher counselors work with them and their programs in consultation with Parents, continuously redesigning and restructuring objectives. Options in addition to curriculum include learning opportunities on a one to one basis out in the community, at home, or in the student center. Each day is planned with the home room teacher and advisor and depends on available offerings.

D. Richardson (1970) in a review of research concerning the general use and effectiveness of learning centers concluded that teachers generally liked the open space teaching facilities, that inservice time was imperative to discuss problems and develop materials and that school wide coordination and evaluation were necessary.

Junior High School References

Nevins, (1970) found in a comparative study between an innovative and a traditional Junior High School that neither curriculum design was superior to the other from the standpoint of student scores in cognitive or academic disciplines but that students took more responsibility, and expressed more pleasure in the innovative setting and that new instructional techniques as team teaching and large and small group instruction were more acceptable to them.

According to Murphy (1965) the middle school is envisioned as a community oriented education center, flexible and able to adapt to varying needs of its student population.

Eichhorn (1971) urges that the adolescent student have access to an adult who is intimately aware of him in all aspects of his life. Alexander's (1971) goals for this age group include a home base and teacher for every student, a learning program concerned with skills of continued learning, personal development and use of organized knowledge, an instructional system which focuses on individual progress, interdisciplinary teaching and flexible grouping and scheduling.

Johns (1971) finds that in a survey of school finance

... universally, the most money is available for schools in those districts where the children are already farthest ahead, the least money to the districts where the children lag farthest behind... Just as children differ, so do the costs of educating them. The seemingly paradoxical fact is that if we want to make educational opportunity truly equal we must spend unequally.

Educational Innovation References

The application of a systems approach to the problem of innovation was spelled out by Polk (1970). He emphasizes the relationship of every aspect of the system to each of the parts and the necessity for openness between the parts to maintain the integrity of any or of the total system. He proceeds from identification of the problem to objectives, constraints and alternatives and from there to design, evaluation and modification of the system.

The necessity for change in education has been dealt with by countless authors in the current decade. Burt and Lessinger (1970) provide a colorful description.

Education has been described as a cottage industry. We would add that it is a quaint cottage industry. A part of the back wash of history. Just when the function and purpose of education are vital to our future as a society of free men. (p. xviii).

These authors urge that educators search out and harness the material and human resources of the community in support of the learning needs of students.

According to Hapgood (1971), arriving at a climate that is conducive to individualized instruction and creativity requires a gradual, sensitive approach. The British Open Schools move toward openness as students, teachers, and participating parent volunteers are ready to do so.

The central goal of education, according to Alexander (1971) should be to develop a self directed, continuing learner. He should be actively involved in planning his curriculum and progress along a series of curriculum continuums. Alexander would like each school to become a management center facilitating learning which may be carried on elsewhere. He recommends the use of many facilities, many locales, many media and cites successful experiments of this nature in the Metro School in Chicago and Parkway School in Philadelphia. Alexander urges that a systems concept be used to relate objectives to opportunities, with students and counselors to identify choices and sequences. He would like a curriculum council to work with teachers and to serve as a clearing house for interschool planning with support services from universities and community laboratories.

An unusual example of an experiment in educational change is reported by Filep and Sales (1970) in a review of a cross country flight made by some California educators to visit innovative schools in Fort Lauderdale, Philadelphia, Albany, Evanston and Las Vegas. They studied educational parks, team teaching, programmed instruction and computer assisted instruction.

Macdonald (1972) believes that an educational system must both reflect and influence the society which it serves.

Many authors have convictions about the course education must take. More community involvement, in instruction and in decision making, less separation of education from the rest of society, and the development of maturity and independence in learning are clear mandates in the literature.

Bronfenbrenner (1969) calls for greater involvement of parents and other adults in the lives of children and greater responsibility of children for their families, communities and society.

Bruner (1971) states that the task of constructing a theory of cognitive development "belongs to the whole intellectual community, the behavioral scientist and the artist, scientists and scholars who are the custodians of skill, taste, and knowledge in our culture. (p. 66)."

Kubie (1967) points out that without an ongoing process of understanding oneself, erudition but not wisdom are acquired. Lustig (1971) urges that educators concern themselves with the emotional aspects of learning and capitalize on the child's perception to foster involvement in academics. Literature concerning the community school concept is extensive. These are some of the factors which influenced the directions of the development of the Northwood Learning Center. The writings of Christian (1971) and Berridge (1971) emphasize the possibilities of new and supportive relationships between community and schools.

Another concept of significance in the development of the Learning Center was the idea expressed by Thompson (1971) that there is hope for adolescents with learning difficulties if we can get away from our obsession for conformity. She believes that labels create self fulfilling prophecies and that individual differences need not be equated with handicaps. Students should be given choices so they can learn to develop judgment.

Double messages -- References

Schools characteristically, according to Poremba (1971) give double messages to children. The requirement of compulsory education he considers a blatant example of this since it is rarely pointed out to students that they are legally required to attend school. According to Marland (1971) 700,000 students drop out of school every year. Poremba asks that educators resist speaking of meeting the needs of children while such statistics occur. He also believes that tests which are not totally shared with students create a further gap making contracts and motivation difficult.

Four L's References

Many ideas were culled from the literature reviewed concerning the theme identified for the Northwood Learning Center. In the literature as in the projects themselves, the theme topics overlapped making isolation of learning, labor, leisure and love nearly impossible. The references cited concerning learning are

part of a large body of information relevant to this study but not primary to it. In a resource serving an entire school population one must be concerned with many aspects of learning.

Learning problems with students may be handled in a variety of ways which are not necessarily mutually exclusive. Problems may be attributed to a discrepancy between the objectives of a student and his peers, the faculty or the administrative policy. Literature concerned with a number of alternatives for adaptation was reviewed. Platt (1972) asks that one examine what is taking place that reinforces negative behavior. Kubie (1967) is concerned with the potential of sublimation, Goldiamond (1971) with skills of behavioral engineering, Rogers (1969) emphasizes approaches to reaffirm human potential.

A significant key to learning success, according to the literature, is individualization. Decisions about individualization, according to Barden (1971) relate to the parameters of available teaching talent, student capabilities, physical facilities and enrollment. Zirbel (1972), Brown (1965), Seidel (1971) point up strategies that contribute to individualization, cybernetics, nongraded schools, small groups. Innes (1971) emphasizes the important element of student participation and control in decision making. Lum (1971) favors student contracts and behavioral objectives to avoid gaps between the baselines of student performance and goals. Macdonald (1972) advocates peer interaction for motivation and aid to learning.

Grinspoon (1971) reported programs and research involving children, peers, volunteers as tutors. Status was provided to tutors and many students had dual roles of teaching and being taught. Moorefield (1971) reported an effective educational innovation in Louisville, Kentucky. Under the direction of Superintendent Newman Walker, the traditional class of one teacher and 28 students was supplanted by a differentiated staffing approach. Between 100 and 200 students are grouped with a team of eight adults. An experienced teacher or team leader, a second teacher, four interns and two paraprofessionals, and sometimes student teachers and volunteers make up the team. Each adult is able to work with small groups or individuals within a problem solving based curriculum. The principal is an educational leader who works with a business manager in each school. A council for each participating school is composed of parents, teachers and older children.

Toffler (1970), Havighurst (1969) and others point to the increase in leisure time in our culture and recommend that future planners be concerned with this phenomenon. The implication for the future of students who attended school districts where so-called extra curricular subjects were reduced or eliminated, is clear.

Pfeiffer and Davis (1971) in their study of the use of leisure time by older adults conclude that our culture is now work oriented and that individuals in their middle age will arrive in old age essentially unprepared to use their free time.

The labor theme was introduced in the Learning Center for significant cultural reasons. Marland (1971) observed that the primary reason for the failure of the schools to serve many of the young could be traced to general education. "If we could replace that curriculum with the kind of creative and productive schooling that enables youngsters to carve out careers for themselves we would save a good deal of money that to all intents and purposes is now simply going down the drain (p.27)." Marland (1972) emphasizes the need for total career education programs spearheaded by vocational education to reduce national unemployment.

Toffler (1970) comments that we are educating for a vanishing society and that future careers will be in relation to such fields as submarine and planetary living. According to Crookes (1972), the emphasis of education in the suburbs has been on college preparation but only 20% of American youth graduate from college, 23% of high school students drop out and 25% graduate with no job training and do not go on to college. Erickson (1971) proposes that career education proceed as a developmental process involving many choices and many decisions over an extended period of time.

In specifying needs of gifted children, Plowman (1971) recommended relationships with knowledgeable, creative adults to help them develop ideas about themselves, school, vocations and their world.

Murray, Havighurst and Powers (1971) find implications for youth in the thrust for second careers of older adults. The dimensions of change of employment of the older adult are found to relate to the strength and pressures within the self for change and to the external opportunities for change. Both thrusts relate to the education of youth. Samler (1971) is interested in providing assistance to the student in vocational decision making. New industrial education projects are being reported. Burt and Lessinger (1970) detail a Detroit program where local industries and schools mutually adopt one another. Hickey (1971) reports a vocational project in Flint, Michigan to acquaint sixth graders with a wide variety of jobs in business, government and industry.

From the kindergarten visits to the Post Office and Fire Station to lectures by parents concerning careers, informal and unsequenced career experiences are taking place. As career education becomes an accepted imperative, more purposeful and structured opportunities should be made available.

The theme of love is most evident in the helping relationships that can take place in schools. These are fostered in the Learning Center between students and students and students and volunteers. Blackman (1971) reports on a Toronto project, SEED which describes Shared Experience, Exploration and Discovery, a school summer program which became a catalyst for alternative education within the school curriculum.

The Institute for the Development of Educational Ideas held a conference at the University of North Carolina sponsored by the Kettering Foundation in February, 1972. The participants were representatives of industry and education and recommended definition of educational objectives, assessment of human and material resources in school and community and cooperative implementation of goals.

The consideration of the positive effect on the school of community involvement is significant. Halliday (1970) correlated a positive effect on the school with parent involvement. Hall (1971) found citizen participation could be a cohesive force. There is much literature available with particular reference to the older adult as volunteer. Sainer and Zander (1971) state that volunteering is one important approach to meeting some of the common problems of aging, maintaining a feeling of continued usefulness and self respect and overcoming loneliness. A partnership between agencies concerned with aging and those concerned with education can provide the opportunity for education to become more humane and for older people to find a culturally significant outlet for their time and knowledge.

Summary of References

References were selected which appeared significant to the development of the Northwood Learning Center. Structures and values of learning centers elsewhere, the needs of Junior

High School students, and the implementation of change were major considerations. The problems of double messages, difficulties in learning, and projects relating to learning, leisure, labor and love were viewed as timely, explored in the literature and in varying degrees dealt with in the development of the Learning Center program.

Summary of Issues raised by the Literature

- a. What are appropriate objectives for a multimedia center?
- b. What constraints will limit the realization of goals?
- c. What objectives require postponement?
- d. What are the costs, staffing and staff roles implied?
- e. Is continuing responsiveness to change possible?
- f. To what extent will student needs be met?
- g. What are the double messages?
- h. If the four L's are valid goals, how can they be implemented?
- i. How can an effective volunteer program be accomplished?

Chapter references

- Alexander, W. M. The emergent middle school. N. Y.:
Holt, Rinehart & Winston, 1968.
- Alexander, W. M. What has happened to the middle school?
Bulletin of the National Association of Secondary School
Principals, 1971, 355 (135-141).
- Barden, J. The student teacher interface. Educational Technology
Research, 1971, 35 (1-36).
- Berridge, R. A process oriented community, Tipp City, Ohio.
Community Education Journal, 1971, 1 (3), 13-17.
- Blackman, N. The community as classroom. Bulletin of the
National Association of Secondary School Principals.
1971, 355 (147-158).
- Bowman, T. R. The learning center. Science Research Associates,
Glen Elyn, Ill. Inservice Institute. December, 1970.
- Bronfenbrenner, U. Two worlds of childhood U. S. and U. S. S. R.
N. Y.: Clarion Publications, 1969.
- Brown, B. F. The appropriate placement school. West Nyack, N. Y.:
Parker Publishing, 1965.
- Bruner, J. S. The relevance of education. New York: Norton, 1971.
- Burt, S. M. and Lessinger, L. M. Volunteer industry involvement
in public education. Lexington, Mass.: D. C. Heath, 1970.
- Christian, F. Southeastern regional conference. Community
Education Journal, 1971, 1 (3), 49-50, 62-63.

- Crookes, B. Bringing education into the seventies. Highland Park News, Highland Park, Ill., Jan. 6, 1972.
- Eichhorn, D. H. The emerging adolescent school of the future - now. Symposium presented at the A. S. C. D. Continuous Education Conference. Chicago, Oct. 1971.
- Erickson, V. Vocational guidance at the elementary level. Unpublished bulletin, State of Illinois, Department of Vocational Education: 1971 p. 1-17.
- Filep, R. T. and Sales, T. B. Journey for relevance. Institute for Educational Development. 1970, 3 (1-68).
- Goldiamond, I. Learning disabilities and operant behavior. Symposium presented by Michael Reese Hospital at the University of Chicago, Dec. 1971.
- Grinspoon, K. Children and adolescents as tutors: factors involved in using this technique. American Orthopsychiatric Association Newsletter. 1971, 15 (4-14).
- Gurske, B. The learning center. Science Research Associates. Glen Ellyn, Ill. Inservice Institute, October, 1971.
- Hall, D. W. The effects of school involvement on the educational attitudes of community adults. (Doctoral Dissertation, Northern Illinois University) Ann Arbor, Mich: University microfilms 1971, No. 71-18-549.
- Halliday, M. F. An investigation of parent attitudes in relationship to community unrest. (Doctoral Dissertation, Michigan State University) Ann Arbor, Mich: University Microfilms, 1970, No. 71-18215.

- Hapgood, M. The open classroom: protect it from its friends.
Saturday Review. 1971, 54 (38) 66-69,75.
- Havighurst, R. Work, leisure and education, toward the goal of
creating flexible life styles. The Gerontologist. 1969, 9
(4) 17-35.
- Hickey, H. Insights into the world of work. The Community
School and its Administration. 1971, 9 (11), 1-4.
- Innes, T. C. Measurement, accountability and humaneness.
Measurement and Evaluation in Guidance. 1971, 4 (2)
- Johns, R. L. Toward equality in school finance. American
Education. 1971, 7, (9) 3-6.
- Kubie, L. S. Neurotic distortion of the creative process.
New York: Noonday Press, 1967.
- Lum, L. A. They packaged concept 9. Audiovisual Instruction.
1971, 16, (8) 39-41.
- Lustig, M. W. Psychological implications for a new education.
New Voices in Education. 1971, 1 (19-21).
- Macdonald, J. B. Introduction. In J. R. Squire (ed.) A new
look at progressive education. Washington, D. C.: ASCD, 1972.
- Marland, S. P. Marland on career education. American Education.
1971, 7 (9) 25-28.
- Marland, S. Career education. Education Daily. 1972, 5, (3) 1-6.
- McQueen, M. Learning resource centers. Research Report. Science
Research Associates, 1969, (5-2424).

Moorefield, Story. How Louisville put it all together.

American Education, 1971, 7 (10) 30-34.

Murphy, J. Middle schools. Educational Facilities Laboratories.
New York: 1965.

Murray, Havighurst and Powers. Personal and situational factors
producing flexible careers. The Gerontologist, 1971, 2(4), 4-12.

Nevins, J. B. A comparative evaluation of the curriculum in an
innovative and a traditional junior high school based upon
certain characteristics of student educational and personal
development. (Doctoral Dissertation, Texas Tech University)
Ann Arbor, Mich.: University microfilms, 1970, No. 71-9658.

Ofiesh, G. Learning resource center. Educational Technology,
New York, 1970 cassette.

Palmer, G and Jenson, O. Freedom to learn at Wilson Campus
School. Today's Education, 1971, 60 (8), 47-48.

Pfeiffer, E. and Davis, G. The use of leisure time in middle
life. The Gerontologist, 1971, 2(3-1) 187-195.

Platt, J. Beyond freedom and dignity. The Center Magazine,
1972, 5 (2), 34-53.

Plowman, D. What can be done for rural gifted children and
youth. In Gowan and Torrance (Ed.), Educating the Ablest.
Itasca, Ill.: Peacock, 1971.

- Polk, C. H. An application of general systems theory to program planning. (Doctoral Dissertation, North Carolina State University), Ann Arbor, Mich.: University Microfilms, 1970, No. 71-10,296.
- Poremba, C. Juvenile delinquency and learning disabilities. Fund for Perceptually Handicapped. Winnetka, Ill. lecture, Nov., 1971.
- Richardson, D. I. A study of in-service education practices for open plan schools. (Doctoral dissertation, University of Tennessee) Ann Arbor, Mich.: University microfilms, 1970, No. 71-364.
- Richardson, J. Winnetka's learning laboratory. Educational Leadership, 23 (6) reprint.
- Rogers, C. Freedom to learn. Columbus, Ohio: Merrill, 1969.
- Sainer, J and Zander, M. Guidelines for older person volunteers. The Gerontologist, 1971, 2(3), 201-204.
- Samler, J. A second look at second careers. The Vocational Guidance Quarterly, 1971. 20(2)112-118.
- Seidel, R. J. Theories and strategies related to measurement in individualized instruction. Educational Technology, 1971, 11, (8), 40-47.
- Teachey, W. G., Carter J.. Learning laboratories. Englewood Cliffs, N. J.: Educational Technology, 1971.

- Thompson, A. New hope for disordered adolescents. Fund for
Perceptually Handicapped. Winnetka, Ill. lecture, Dec., 1971.
- Toffler, A. Future shock. New York.: Random House, 1970.
- Zirbel, H. E. Vocational education: where humanization works.
National Association Secondary School Principals Bulletin,
1972, 361 (84-87).

Chapter 3

Developmental Process Northwood Learning Center

The coordinator was employed to develop the Learning Center. As each project was implemented or as changes in routine, physical settings, procedure or materials occurred, they were evaluated and reinforced or modified. The evaluation took place in regular conferences with the Learning Center staff of five paraprofessionals, with the Principal, the Superintendent and informally with teachers. The process was a continuing one. Whenever possible students were involved in decisions. Responsiveness to change is a necessary element for a learning center if it is to be compatible with its students, community and staff. The degree of change is crucial for maintaining sufficient stability to function effectively.

A major difficulty in describing the period between the opening of the Learning Center in September, 1971 and May, 1972 is that of telescoping the impact of change and adaptations and frustrations which occurred. Because of the multiplicity of pressures, one could not be certain that a change which was a constructive response at one point to one factor would continue to be so for any length of time and in relation to other factors. If responsiveness to change is an essential human attribute for the future, opportunity was amply present.

As was noted in descriptive data concerning District 111, staff changes and administrative problems accelerated until the winter holiday. Beginning in January, some of the difficulties of scheduling, staffing, housekeeping and furnishings diminished although many problems continue to require further examination and resolution.

The development of the Learning Center was a process with the major interacting factors the goals, the students, the staff and administration, the volunteers, the projects, the physical facility, budget and materials. Each of these factors were responsive to fluctuating other minor factors. The following system identifies some of the relationships interacting with the primary factors.

The learning concept was dependent on whether the instructional staff referred students to the Learning Center and the degree of motivation of the student and his participation in the referral. Obviously, when a student came to the Center to escape from the classroom or was referred to the Center to relieve the classroom, the success of learning was, to say the least, diluted. Likewise, individualization of instruction depended on teacher readiness to plan with Learning Center personnel for an individual student and number of students referred any given period. Use of audiovisual materials also was a complex factor depending on available equipment and the number of students requesting it, materials in teacher classrooms, student aides available to assist in distribution, effectiveness

and promptness of repairs. Materials preparation not only depends on staff availability but types of materials requested by teachers. For example, two math teachers secured geoboards, Napier rods, felt circle boards, string geometric design crafts, through project development in the Learning Center. For effective program development, not only the goals of learning and other objectives had to be considered. Just as with a student with whom an individual program is developed, base lines have to be established in terms of teacher accessibility, communication and cooperation. In science, social studies and language arts, most teachers utilized the Learning Center for viewing audiovisuals and allowing students to develop group inquiry or written reports. This was particularly accelerated during preparation for the Science Fair.

Thus the objective of the L for learning flowed from student and teacher baselines and Learning Center communication. Its achievement depended on interpersonal relations, materials, events and pressures in the school as a whole and time and staffing. Similarly with each of the other goals. The leisure and labor themes were closely tied to staff and volunteer availability and to budget considerations. In many projects written as well as verbal instructions were available. The extent of supervision depended on the individual student, the nature of the group of students, or the intrinsic problems of the project. For example, a student might build an electronic kit independently from the written instructions or with the assistance of a peer. Needle-crafts were done with minimal direction by some, with close

supervision for others, in response to individual needs.

The consideration of readiness or baseline for each project had to be concerned not only with the skills of the student, availability of space, materials and supervision, but also the accessibility of the student to the project and to working in the open Learning Center setting with high demands on maturity of behavior. Some students had a conflict of goals, wishing for a recreational or physical education facility.

The population of the Learning Center could vary from 15 to 50 or more students during free flow to as many as 130 in a combination scheduled in and free flow period. Frequently, several classrooms would be divided and half sent to the Learning Center for an assignment. The motivation of students to accomplish the work varied. The craft or lecture in the Center for the scheduled students often was irresistible to the students referred for assignments.

In spite of the foregoing weekly population of around two thousand students, with the help of staff, student aides and volunteers, it was possible to have discernible and meaningful activities maintained.

Beginnings were made in student use of the community as a total educational environment. The aviation project had two flights arranged by parents for students studying aviation, two students had access to medical facilities to study hematology. The High School laboratory was made available

for one of the State Science Fair project development.

Figure 1. depicts a simple flow chart describing a few of the decisions involved in designing one pre-career education lecture. These lectures took place twice a week in the Learning Center. The goals of these talks by experts recruited by the Volunteer Pool of Highland Park, were to begin to present some options in the world of work to the Northwood students. The first period in the morning was designated as the time for the talks both for the convenience of the speakers before they left the suburb for work and to attempt to engage the interest of the eighth grade students programmed into the Center that period.

The decision about the career choices presented was made by selecting from available career volunteers discovered by the Pool, the ones preferred by students and teachers. Because the program was untried, casual inquiry was made about preferences rather than emphasizing a possibility not known in outcome. Because there was increasing interest evidenced by student attendance, students' increasingly career oriented questions and teacher cooperation, the procedure can well be more formalized in its teacher and student involvement in the future.

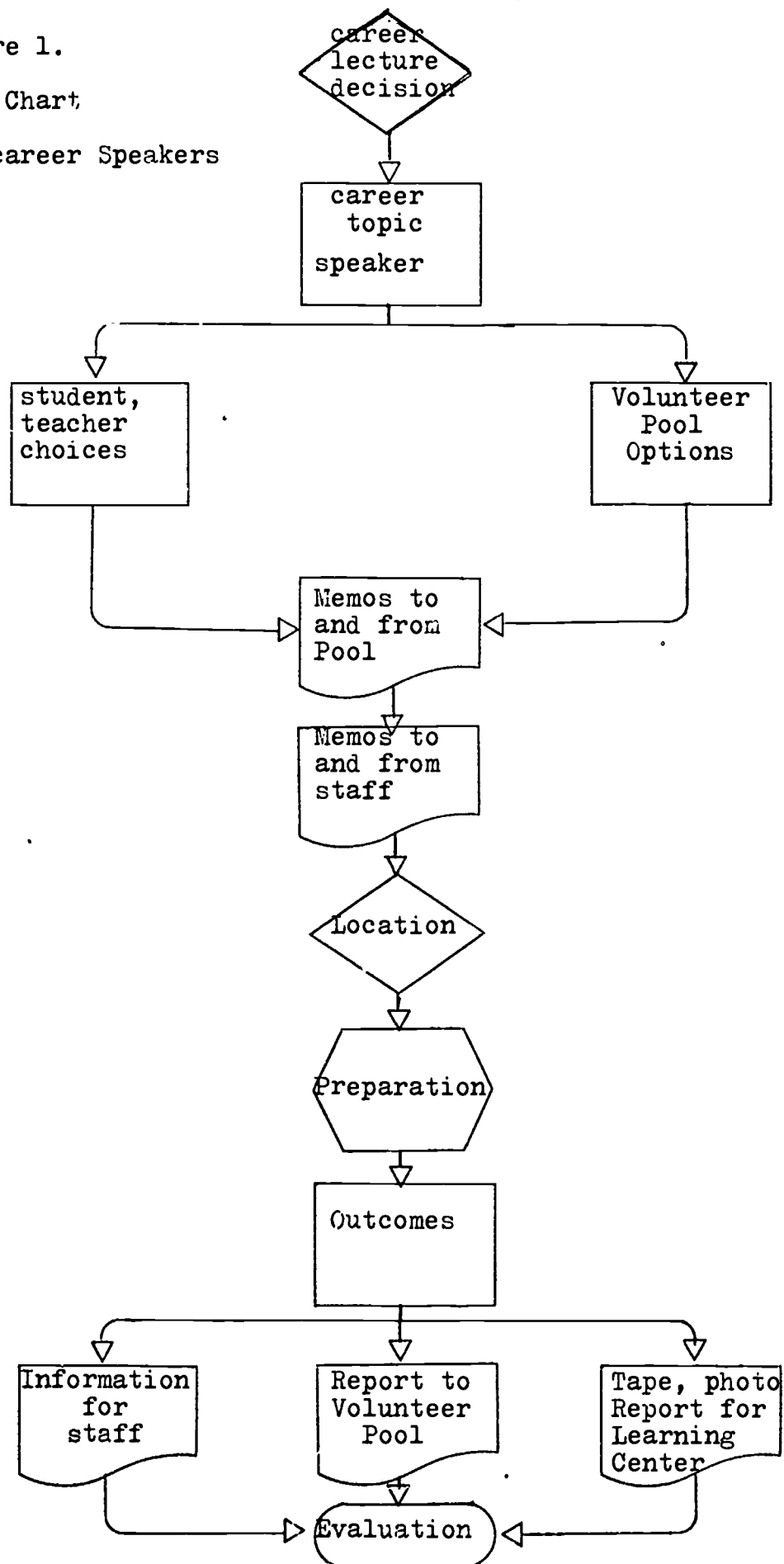
Memo from the Volunteer Pool prepared the Learning Center and the volunteer for the appointment. Response of teachers to a report of the event contributed to the decision of whether to meet in a small area or the open Learning Center. Attendance which was as small as six students in the early lectures, ranged between 25 and 100 later depending on interest in the topic. A tape and written report for the Learning Center and to the Pool was made for each speaker and evaluation was ongoing.

Figure 1.

Flow Chart

Pre-career Speakers

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The budget for the Learning Center for the first year was \$2,600.00 exclusive of salaries and equipment repair. The approximate distribution of these funds were 15 per cent for film and photographic supplies, 14 per cent for academic materials, 15 per cent for microphones, cassettes and reels, 38 per cent for arts and craft materials primarily consumable, 17 per cent for equipment as bulbs, phonograph needles for audiovisual equipment for the building. In addition some gifts were contributed by parents in response to requests by the Parent Teachers Association and purchases were made by Green Stamps contributed by students and their families and staff. These were not inconsiderable and provided a movie projector, a camera, guitar and vacuum cleaner.

Problems of storage had to be met and here again experimenting was necessary before satisfactory solutions could be found. Where equipment was located tied closely to staffing and supervision available. For example, it was not practical to allocate a staff member to a small room where movies were regularly viewed. As some students required supervision and there were minimum options to the presence of those students, the movie projector was moved into the open area where supervision was less of a problem. A similar experience occurred in relation to the typewriters.

A system of cataloguing the audiovisual materials had been developed the previous year in close cooperation with the librarian who provided the service and this was extended throughout the year.

Diary Excerpts

A weekly informal diary was kept as the Learning Center developed. For flavor and process a few excerpts follow.

September:

Ordered tapes and cassettes so a library could develop based on the expertise of our volunteers. Materials would be available for students and teachers for recording and listening. Met with Student Council, PTA officers, Learning Center staff, administrators, teaching staff, counselor and learning center coordinators in the primary schools. September 7, 1971, gave speech to staff. Appendix (ex. 1).

October:

Major problems are scheduling and planning with students who really cannot adapt to sedentary activities. They are a small minority but powerful in terms of time and emotion. Need individualized projects and supervision.

November:

Housekeeping changes last month, the typewriters went into the open area and now the art room is going. We don't have to worry about water because there isn't any. Any enclosed area is proving hard to supervise. Most students function well with minimum supervision but always the few who cannot, influence the total climate.

December:

The Principal resigned and the school is going through a crisis of self examination and looking at the incompatibility of structure of curriculum and goals with practical problems of finance, staffing and materials.

January:

The first week was unreal. L. was out one day. E. two days. C. is part-time and leaving. No leatherwork or linoleum can be done with more than four students because of hazards and we have groups of 50 or 60 coming! Most of the sixth graders sign up for crafts. Some petty thefts or objects have been misplaced. Students are getting tired of being equipment managers and want to be in the projects. In a way this is good because they want to be involved but we need to stretch the staff. Pre-career projects start next week. Thank goodness for the Volunteer Pool. One staff member short almost all month. The achievement of the week was the departure of the Bean Bag chairs. Six for all those students!

We began recruiting student aides. We have instructions, objectives and real responsibility. The audiovisual equipment is beginning to be catalogued by serial number instead of Learning Center number. One volunteer is building a new film strip container which is an improvement on the commercial one. Gregg's movie about the Learning Center is beautiful. The strength of the staff is emerging under the new leadership.

February:

The pre-career education project is off to a good start. Supervision of volunteers, staff, Trinity College students and aides is being done by task analysis with the questions of what are they trying to accomplish, how are they going about it and how will they know when it is done. The student aides appreciate criticism and direction and bring their report sheets regularly for entries. We still have difficulty with the students who really want a physical education program. Only a small group of parents, thirty-five, came to the Learning Center shower but they had a fine time, brought Green Stamps, equipment, participated in the mini-projects and enjoyed the volunteers.

March:

The week before parent conferences was rough. Students were looking forward to the short week and were concerned about conferences and grades. Just before Spring Vacation we began to reschedule with options of study hall or library instead of Learning Center. By the end of the first two weeks all of the students who had signed up for study halls had opted to return to the Learning Center but the climate markedly improved because they had made a choice.

April:

The new scheduling system continues. Study halls out of Learning Center have been disbanded. A few students continued to choose library. Movies and television, (educational) are in the open arena. Science Fair projects are winding up with outstanding exhibits to go to the State. Photography is becoming a full time operation. If only the dark room were in the Learning Center and had running water!

For more detailed reports of specific developments, the monthly reports are summarized in the Appendix (ex. 2).

Scheduling and Staffing

The scheduling of students into the Center every fifty minutes remained the most difficult problem throughout. A consistent attempt was made to provide activities for those who were interested and to accept inactivity of those who were not provided they did not disturb others. A critical issue was what constituted a disturbance. Often behavior which was not intrinsically a problem became so because of the open group situation. Walking about in the courtyard, clapping while listening to records, visiting with students working with a volunteer, had to be restricted. The line between what was and was not permissible was sometimes difficult to interpret. Students might come in on passes to interview other students as part of their social studies or science assignments. This could be acceptable or not depending on the degree of interference with ongoing projects.

In order to establish an acceptable climate, free flow was not opened until the end of October. Students who were scheduled in filled out informal contracts indicating their choice of activities in discussion with a paraprofessional assigned to them. See appendix, (ex. 3).

During the first four months there were consistently two full time paraprofessionals and six part time filling three places. There was considerable turn-over as two certificated teachers left to enter classrooms. By March,

there were four full time paraprofessionals and two part time but by then the insistence that students check in had been relaxed as it was impractical with the many staff changes.

Morale improved considerably after students were given options of library or study hall instead of their Learning Center periods. Almost all opted to stay in Learning Center. It is not clear whether the improvement in morale could be attributed to the change in scheduling procedures, the expectation that students accept a reasonable responsibility for their commitment, a relatively consistent staff, the increase of academically oriented referrals by teachers, the time of the year, a combination or other factors.

The leadership of the new Principal with firm discipline was undoubtedly of major significance. Throughout the period the consensus of the Learning Center staff opinion was that the regular scheduled in referrals was a most serious problem. See report to the Superintendent, Appendix, (Ex. 4).

In April, the Learning Center staff reviewed the process of identification of projects and came to the following conclusions:

- a. There was merit in having a staff member identified as a resource person for each student. This identification should be flexible so that needs and personalities could be matched.
- b. As long as attendance in the Learning Center was obligatory, additional options should be built in.

- c. Projects led by volunteers, as astronomy, motors, aviation, guitar, modeling, computer building, Spanish, Italian, gardening, must be protected in regard to attendance and free from interruption.
- d. Projects led by Learning Center staff such as typing, photography and arts and crafts were limited by the facility and equipment and should have consistent attendance and appropriate behavior.
- e. Other projects such as independent activities, listening to records with use of headphones, games, movies, needlecrafts might be more open in terms of number of participants but students should continue long enough to complete a project and gain satisfaction and skills.

Volunteers

Arts and crafts, photography, needlecraft, drama and typing were guided by the staff, sometimes with the assistance of volunteers. The courtyard project, community art project, pre-career education lectures, tapped the most knowledgeable people in the community in these fields. The weekly classes of small groups in skills and professional areas as astronomy and aviation were led by highly qualified individuals. No school could begin to meet the cost of such personnel on a fee basis.

The procedure for securing the volunteers is by written request to the Volunteer Pool. See Appendix, (ex. 5). The Volunteer Pool and the school share the responsibility for screening volunteers for appropriateness in terms of personality, knowledge, and current report of examination indicating freedom from tuberculosis.

The responsibility for supervision of the volunteer and reporting back to the Pool rests with the school. The Northwood

Learning Center program, because of the large numbers of volunteers and demands made on the staff for many responsibilities, divides the coordination of the volunteer program between staff members and a volunteer coordinator. The volunteer coordinator makes the formal requests to the Volunteer Pool, takes care of telephone communications, writes notes of appreciation and assists with the end of the year tea or other occasions honoring volunteers, and writes termination notes and reports to the Volunteer Pool.

Volunteers are supervised by the coordinator in the Learning Center but also directly by the staff member in whose area they are working. Because a central community pool is used, a wide variety of capabilities may be tapped. The presence of the volunteers in school provides an excellent vehicle for improving public relations. The positive experiences in the school are seen and the problems viewed realistically in relation to their causes and what can be done to relieve them.

The Volunteer Pool of Highland Park provided over 1,185 hours of service to Northwood during the 1971-72 school year. The contribution of parents' time brings the hours well over two thousand. The Learning Center, primarily because of the contemporary, relevant projects available, is considered a vehicle for alternative education within a public school. This has been reinforced by the acceptance and extension into the total educational program.

Objectives for each project are spelled out and reviewed. Forms used for this are in the Appendix, (ex. 6). For example,

the objectives in the photography projects include specific skills in handling cameras, in taking, developing, printing and mounting pictures. They also include relationships with peers in a situation which requires waiting, crowding and sharing. The behaviors anticipated when such objectives are realized are direct and observable. When students report they are building a dark room at home, come to the Learning Center to discuss problems in photography or stay after school to complete their pictures, these are some indirect measures of the very positive meaning of the project.

Trinity College, (Deerfield, Illinois) sent ten Education Psychology students to work in the Learning Center once weekly for a semester. Each student conferred about objectives and kept a diary of the work. Forty students worked as student aides. The information concerning their achievements may be added to their cumulative files at their option. Similarly, students working in the primary grades are evaluated on the basis of attendance and performance.

Two objectives for the Learning Center have been major considerations for the year. They are the increase of academic referrals in which students are motivated and further individualization. It is apparent that as success in developing these two objectives increases, satisfaction for students in learning will be heightened. The implications for these goals to be accomplished, relate to scheduling, staffing and conferences. Ignoring negative behavior and assisting with academics resulted in student cooperation.

Summary of Issues in the Developmental Process of
Northwood Learning Center

- a. Is the physical facility within the Learning Center appropriate to the function in terms of size, lighting, water, accessibility, supervision?
- b. Is the scheduling of students appropriate to the activity for which they are scheduled in terms of frequency and length of any given period?
- c. Are materials housed appropriately in terms of ease of location, minimum of wear and tear on staff and equipment, and in fostering independence on part of students?
- d. Is staff allocation appropriate in terms of budget, differentiation, responsibilities?
- e. Is responsiveness to change a consideration in structure, scheduling, funding, staffing?
- f. Is opportunity available for planning with teaching staff regarding individualization of instruction, materials supportive to students and curriculum?
- g. Is material distribution appropriately designed in terms of service, accountability and utilization?
- h. Do students have part in the decision making process in terms of activities?
- i. Is there a facility which provides appropriately screened and matched volunteers for non-profit agencies?
- j. Are reports and statistics available to note trends and project future needs?

Chapter 4

Summary, Recommendations and Alternatives

The theme of the four L's was identified in the Learning Center as a result of cultural needs spelled out in the literature. Initiative and direction was required in the Learning Center to accommodate to the students scheduled into the Center. Subsequently, attention was given to the Center because of the opportunities given students for selecting projects which were alternatives to the traditional academic areas. Mr. Hannah's film and Learning Center reports have been shared on an ever widening base. As the year progressed students were referred to the Center for creative academic purposes which were clearly satisfying to many.

Population Trends

Figure 2. (page 48) depicts trends in student population in the various Learning Center projects during the eight months of the study. Opening the Center to free flow produced an increase in students using the area for academics. The preparation for the Science Fair which occurred February 24, 1972 and continued with the State level competition in April markedly increased the number of students coming to the Center. While fifty students continued to use the facility five periods a day, an additional 25 to 75 could come to work on academics and of the six periods during the school day. During the three months of the pre-career education lectures, interest grew.

Figure 2

Learning Center Population Trends
September 1971 through April 1972

Month	Pre- Academics	Arts, career Crafts	Movies Games	Photo- graphy	Aides	Needle work	Lan- guages	Records Rap	Typ- ing	Drama	Volun- teer	Uncom- mitted	
Sept.	130	85	133	25	80	125	18	6	41	35	51	259	
Oct.	215	190	139	15	68	132	62	10	31	51	94	242	
Nov.	224	358	98	30	62	146	28	8	30	29	83	122	
Dec. Jan.	250	390	186	37	57	140	18	12	30	47	89	55	
Feb.	381	45	218	180	77	61	140	31	10	44	38	83	122
Mar.	400	262	178	162	80	103	100	6	86	40	34	95	116
Apr.	450	466	160	208	123	123	111	8	118	37	32	96	45

By Months and Major Projects

The population figures raise issues and reflect a number of factors. The fact that students are both scheduled in and free flow obliged all students to come to the Learning Center twice weekly but not necessarily to use the Center for purposes related to academic work. A general trend toward increased commitment in finding an activity of interest can be observed. The trend was interrupted by a peak in December when students were eager to complete handicrafts for holiday gifts. In April, the number of noncommitted dropped when students were given the study hall and library options.

The April increase and trend toward more academic referrals were primarily for use of audiovisual materials. However, in no way does this imply that teachers not sending students to the Center were not using such equipment. Some teachers prefer to use the classroom as a multimedia learning center. Teachers check out materials from the Center for this purpose. The Center should serve the major educational goals of the school community and the population of the Center should not be the sole criterion of effectiveness.

Individualized projects carried out in the Center were rare but extremely successful judged by the accomplishments and improved behavior and increased satisfaction of the students involved. Again, the fact that such experiences were infrequent does not imply that individualization does not occur elsewhere. The teachers in Reading, English Language

and Learning Disabilities are housed in the Learning Center area and do individualized work with students. Glasser (1971) reports on individualized instruction and independent study evaluated by controls and attitudes and found that often the improvement in academic achievement was not marked but that there was favorable change in maturity and interrelationships.

Supervision and evaluation has been a continuous process. When a student has an individual project, he, his teacher and the coordinator discuss objectives. The student may be asked to write the goals. He is given a folder in the Learning Center and is expected to maintain a log of his progress. In each instance he reports regularly to his teacher and, if it is appropriate, to his class on the progress of his project.

When students are referred to the Learning Center to supplement classroom projects, and the Learning Center is required only to have materials and space available, the outcome and evaluation of the work is the teacher's responsibility. The Learning Center staff is charged with assisting the student in locating the materials and to return him to class if his activity does not coincide with his pass.

There is an indirect message that has unintended consequences here. If a student comes in on a pass and concentrates on melting into a group scheduled in project as records, games or discussion, he may succeed in this deceit. A double problem results. The role of the Learning Center personnel is not enhanced with the type of detecting that must take place or

by having to return the student to class or study hall for being clever enough to get into a project of interest to him. More importantly, the skills required for the deception are sometimes reinforced by success. There is value, in the author's opinion to have alternative options in the Learning Center but there would be many advantages in avoiding having students in options and in free flow academics simultaneously.

It has been demonstrated that the Learning Center can be a vehicle for curriculum support in partnership with the teaching staff. Initiation of change most often comes from the teacher and is supported by Learning Center facilities or materials preparation. The measure of this is in terms of requests made and filled. The geoboards and Napier rods prepared at the suggestion of math teachers have been widely used in classrooms and shared with the Learning Centers in the primary grades. Simulation games have been developed in the Center and played in classrooms as a stimulating and successful aspect of a social studies curriculum. Success in photography projects led a number of students to use their skills for the Year Book.

The critical issue for ongoing success and expansion of a Learning Center is communication between all parties concerned - administration, staff, students and sometimes parents. As change is noted, differentiated use of staff must be considered. The trend for academic referrals and materials preparation indicates staff directions. The demand

for individual electronic projects and small groups for photography have implications for staffing and budget. Given effective communication and appropriate staff differentiation and relative unanimity of philosophy, there are many alternatives in designing a Learning Center. Time to plan with significant participants is an imperative.

1. The focus of change may be toward completely individualized instruction. In this the initiative may be taken by the classroom teacher and decisions supported by testing and by materials preparation. The teacher becomes a facilitator and requires many supporting services of personnel and materials. Time for planning, training and supervision are essential. The paraprofessional staff would become a classroom resource and volunteers could also be in the service of total individualization. Materials are costly and many are required.
2. Another alternative calls for small group instruction and some leveling of students in given subject areas with diagnostic and prescriptive materials available. Again, implementation of individualization by small groups requires staff and materials support. Peer leadership may be a valuable adjunct.
3. A less sequential and less extensive program may depend on teachers, paraprofessionals and volunteers to develop curriculum with students that includes alternatives in addition to academics. The locus of operation flows to and from the classroom and Learning Center.
4. In this option projects are planned jointly and reflect community relevance and curriculum. The material outlay is not as great as earlier options but personnel demands are considerable. Coordination is complex.
5. As the process continues toward more community orientation, the classroom and curriculum become more responsive than generating. The basic curriculum is focused on understanding community roles and tasks.

6. The most community oriented Learning Center concept is one in which the Center becomes a bridge between the community and the school and curriculum is initiated through a community school council. The Lighted School House concept which utilizes volunteers and community facilities epitomizes this level of function. New roles for students and teachers in community agencies are part of this concept. Staffing requires a community school coordinator and education may take place in school, at home, in community, individually or group prescribed.

These Learning Center options are not mutually exclusive but various aspects may develop at different periods. It is most desirable that a general philosophic approach be agreed upon and this then becomes the appropriate direction for a school or district.

In conclusion, the story of the development of the Northwood Learning Center from September of 1971 through April, 1972, is a case study of an emerging Center, a Learning Center in transition. Problems have come and some gone. Some of the difficulties were resolved, some persist, some might have been avoided.

Movement during this period has been toward increasing academic utilization of the Center, increasing helping relationships, increasing relevance.

Summary of Issues

- a. Can a Learning Director be aware of resources for education regardless of where they are located, in materials or human resources, in school or community?
- b. Is where the learning takes place significant?
- c. What direct and unobtrusive measures could be used to determine growth in love of learning?
- d. Can students have independent access to learning resources?
- e. Who makes decisions about Learning Center objectives?
- f. To what extent can behavior disorders, vandalism be correlated with events and climate in school?
- g. Is there a limit to number of students served in a given Center? Staffing needs?

Chapter Reference

Glasser, J. F. The elementary school learning center for independent study. West Nyack, N. Y.: Parker, 1971.

Appendix

Example 1.

Presentation to Staff

The horizons of Learning Centers are as wide as is our caring for one another. We can dream of a place where children can explore and learn but we cannot explore and learn for them.

I have visited many resource centers. Some are sterile laboratories with fabulously expensive equipment, others are centers for games, still others are bee hives of activities. It is clear that the meaning that a learning center has is a reflection of the expectations of the participants.

I am aware of your concerns about the Center last year. Teachers and students have come in to talk about the problems. Actually, with the limits of space, planning time and experience, Northwood developed fine projects. Students who have complained this year have been advised that at least one third of the responsibility for the Center is theirs and that if they did not find last year's outcomes totally satisfactory, they needed to participate in change. We all need to challenge the problems as they develop this year and not wait until June of 1972.

I like to think about possibilities, realities and best options between the possibilities and realities. One of our realities is that 50 students come into the Learning Center five periods a day. To deal with that reality and still fulfill the expectation of creative learning opportunities, we will need a team of students helping other students, interpreting possibilities, establishing and helping to achieve goals. We will also need a climate and image of a place of learning and a place to care about one another. Last year, students came to the Learning Center to relax or play and that's about what they did. We have learned a lot, and still have a lot to learn.

In the beginning, I would like NOT to open the Center to students other than those groups as they are scheduled in -- which means every Northwood student twice weekly. We will get started with projects with them. As you get to know your students and want them to work in the Center on extensions of academic programs or extend your academic programs outward from Center projects, let's plan it together for individuals or groups of students.

The projects that we will begin with will be under contract for mastery of specific goals. The choices will be focused on the fields of Learning, Labor, Love and Leisure. The four L's are identified with the adaptive needs of the future, extended leisure, frequent changes of employment, the necessity for improved human relationships... 9/7/71.

Excerpts from Monthly Reports

Example 2

September, 1971

Procedures

The staff, under full employment, consists of the coordinator and five paraprofessionals. The students who are programmed into the Center twice weekly are divided among the staff, each responsible for approximately 110 students. They check in with their leaders and develop written but informal contracts for the project they will work on.

Three forms have been designed during this period. It is anticipated they will cover the implementation of most of the Learning Center operation.

1. The student contract is a paper on which the student indicates his choice of project, the resources he will need to carry it out and the estimated time it will take. The outcome is entered at the conclusion.
2. An attendance sheet by projects will indicate types of activities and be a measure of interest and attendance.
3. Each project leader whether a staff member, student or community volunteer is asked to summarize project content.

October, 1971

Activities

Additional options were offered in October bringing the total number of possible activities to 27. Twenty three volunteers from the communities of Highland Park, Highwood or Trinity College assist students with their projects. Two lectures on stamps and an exhibit on African Art were given this month. A Lake Forest student wrote his impressions of the Learning Center:

..."In three days I've come into contact with nearly every group of children that I'll have to face during my tenure here...The children with little to do are in the minority...Activities range from homework to the individual study of revolution, past and present. On one side of the room, typewriting manuals serve as teachers for mastering this important ability while aviation is being taught to a group of six by a community volunteer. In between rooms house arts and crafts (new and old) a movie projector, tape machines and material for programmed learning..."

District Cooperation

As a result of monthly meetings with the coordinators of Wayne Thomas and Oak Terrace Learning Centers, some students are helping with kindergartners at W. T., materials are being prepared for science and reading projects at both schools in the Northwood Learning Center.

November, 1971
Staff Involvement

During this period the coordinator met with all of the teaching teams again. Opening up the Center for student referrals in addition to their scheduled in periods has begun. Students are referred in by passes from their teachers indicating the academic purpose of the referral. A sample statistic of this additional use of the Center follows:

Twenty one teachers referred students to the Learning Center during the last two weeks of November in periods in addition to the schedules. From 11 to 103 such additional students were served in a given day. All such referrals had identified academic purposes such as listening to a specific record, viewing a tape, playing a mathematic game or preparing data.

Activities

Three very popular activities, fantasy film flowers, candlemaking and some types of decoupage were discontinued at the end of November because of fire hazard. Except in the case of candle making, the problem related to requiring storage facilities and disposal of waste.

December - January, 1972
New developments

A group of sixth graders under the direction of Learning Center staff is writing and performing Julius Caesar in conjunction with their social studies of Greece and Rome. A film strip and library resources are used by the group. Mr. E. Rietz, one of the community volunteers, is constructing a new type of storage unit for film strips and records which has great visibility and ease of use. Two sixth grade girls, with a staff member facilitating their efforts, wrote an extensive health paper which they had researched since September.

Thegeoboards, decoupage, tile work, and leather work are being prepared in individual packages which conserves materials and makes distribution easier. With each craft a set of mimeographed instructions is provided to maximize independent work. Each craft has a folder in which attendance is kept.

An unresolved problem in the crafts is the control of materials so that each student is encouraged to complete one item before beginning another. The turnover in staff and the large number of students contribute to the problem. A new program, coordinated by Mrs. E. Klein, a community volunteer recruits local artists to do presentation for groups of students. Mr. Hannah completed a Learning Center descriptive film.

February, 1972
Pre-Career Project

A pre-career program was begun this month. The District is indebted to the Volunteer Pool of Highland Park for making this possible. Each Tuesday and Wednesday at 9AM an individual who lives in the area talks with students about his or her career. Thus far, manufacturing, insurance, investment, nursery school education and elementary school administration have been represented. Over 100 choices of careers and speakers have been identified by the Pool and about 35 will have been made available to Northwood students by the end of school. Students are encouraged to ask questions about career choices, demands, and rewards. Tapes are made of the lectures and a career tape library is developing.

March, 1972
Options

During the last two weeks of March, all students were asked to identify two options during their Learning Center periods for the first five weeks of school after spring vacation and another two options for the final five weeks of school.

On March 14, the coordinator showed Mr. Hannah's film to the Board of Education. It was well received and a discussion of learning center options was also presented.

April, 1972
Options

As a result of offering options of study hall and library as alternatives to Learning Center, 77 students signed up for study hall and 31 for library. At the end of three weeks the study hall group had disbanded in favor of working in the Learning Center.

Student Contracts

Example 3.

Name _____
 Grade _____
 Date _____

Project:

Resources:

Time to complete:

Goals:

Outcomes:

Excerpt from Report to the Superintendent

Example 4

Recommendations

December 11, 1971

Basic to an effective Learning Center is the motivation of the student to be there and to participate in the planning of his program. For most of the students this is happening in spite of their being scheduled in. For others, the expectation is to be entertained or policed and some derive pleasure from harrassment.

The length of time the student spends in the Center should relate to the purpose of his referral and the nature of his activity. The scheduled in, tight time program negates this.

The primary recommendations are:

1. Total free flow with student participation in the decision.
2. Time and task planned on a prescriptive basis with teacher, student and learning center represented. The base line of the student in the project at hand, goals and outcomes should be a matter of record and subsequent planning.
3. Curriculum should flow between the classroom and the Learning Center and community opportunities in and out of school made appropriately available.

The remainder of the report to the Superintendent dealt with frustrations to students, staff and volunteers as a consequence of the above.

Request for Volunteers

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Example 5

VOLUNTEER POOL OF HIGHLAND PARK

63 Dean Avenue

Highland Park, Ill. 60035 Phone: 433-2190

Date _____

Coordinator's No. _____

OFFICE NO. _____

Pool or Agency _____

Representative _____

Address _____

Phone No. _____

REQUEST One session _____ Continuing Sessions _____ Duration _____

Number in Group _____ Age _____ Grade Level _____ Teacher _____

Description of Assignment _____

Time required: Day _____ Time _____ Deadline for filling this request _____

TO FILL THIS REQUISITION WE HAVE SECURED

Name _____ Date _____

Address _____ Phone _____

College _____ No. of years _____ Major _____

Special Skills _____ Minor _____

Age _____

Health _____

Date of last chest X-ray _____

ARRANGEMENTS MADE BY POOL

ARRANGEMENTS MADE BY AGENCY

Date _____

Will report for this assignment on _____
(date) (time)

Will be working on continuing assignment _____
(day) (time)

THIS ASSIGNMENT WAS TERMINATED ON _____ Date _____

Reason for termination _____

No. of hours spent by volunteer _____ Volunteer thanked _____

EVALUATION OF VOLUNTEER AND ASSIGNMENT ITSELF

Reliability _____

Communication _____

Was teacher's objective met? _____

Was this the right situation for this volunteer? _____

Comments _____

Objectives

Example 6

Pre-Career Talks

Northwood Jr. High School Learning Center and
The Volunteer Pool of Highland Park, Illinois

We are planning with the Volunteer Pool to arrange to have two lectures a week for a pre-career program beginning in February and concluding in June, 1972.

These lectures will take place in the Northwood Learning Center and be of particular interest to 8th grade students but open to all students at the option of their teachers.

The general goals of the program are:

1. To inform students about a wide variety of careers.
2. To provide information about significant decision making factors in a variety of careers. Qualifications and rewards would be among the decision making factors. Why the speakers identified their particular careers would be of interest if they wish to share this information.
3. To provide an opportunity for students to raise questions and be given responses which will open further avenues of exploration.
4. To provide a pre-career bridge between school and community. A tape will be made of each session (unless the speaker prefers otherwise) and these tapes can be available for future use and will contribute toward a tape career library. When appropriate, and if privately arranged with the speaker, it is hoped that opportunities for students to visit the career location or training facilities might be made possible.
5. The lecture and discussion, the tape and in some instances, literature will provide opportunities for classroom discussion and follow up. The Learning Center staff will make every effort to assist students particularly interested in specific careers to develop projects related to them. When speakers wish to give outlines to students, the Learning Center will duplicate them if given advance notice.

Trends in careers point strongly in the direction of services and communications. The services include the helping professions and repair type jobs as the maintenance of cars, television, computers, home appliances, etc. The communications field deals with television, satellite programs, computer programming and operation, radio, telephone, news reporting, etc. Trends also point to extended leisure time and the development of the creative arts. It is anticipated that many of the foregoing careers will be presented in the Northwood program. The realization of this plan is dependent on the Volunteer Pool and we are most grateful to them for undertaking this project.

Objectives

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Example 6.1

LEARNING CENTER AIDE NAME _____

period	date	activity	evaluation
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Objectives

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Example 6.2

NORTHWOOD LEARNING CENTER

Name of group or project:

Leader:

Beginning date: Termination date:

Average attendance:

Behavioral objectives:

Criteria re fulfillment of Behavioral Objectives:

Conference dates:

Conference time:

Objectives

Example 6.3

INSTRUCTIONS FOR MAKING GEOBOARDS

1. Remove board from packet carefully so that nails and rubber bands will not be lost.
2. Sand board until splinters are moved and board is smooth.
3. Mark 25 dots with pencil on graph paper in the following way. Indent one square (small squares in darker lines) and then mark off 3 squares. Continue across and up and down until you have 25.
4. Paste your marked graph paper in center of block. Smooth.
5. Write your name in margin.
6. Use a large nail to begin holes at the points you have marked.
7. Hammer in small nails, do not hammer in any deeper than is necessary for them to be secure.
8. Be sure that the Learning Center has hammers, glue and large nails for other students to use.
9. Attach rubber bands on nails and you are ready for business.

Objectives

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Example 6.3

CERAMICS

1. Decide on design and colors, and draw out on paper.
2. Choose what the base will be and lay tiles out on it.
3. When design looks satisfactory, glue each piece down in place, making sure the tiles do not touch.
4. Allow glue to dry. Mix grout to consistency of very thick damp frosting--and remember--a little goes a long way.
5. Using fingers, squish grout in little spaces--fill it all in and then wipe remainder of grout off tiles. Allow to dry.
6. Using damp towel, wipe off dry grout on tiles.

Bibliography

Books

- Alexander, W. M. The emergent middle school. N. Y.:
Holt, Rinehart & Winston, 1968.
- Bronfenbrenner, U. Two worlds of childhood U. S. and U. S.S. R.
N. Y.: Clarion, 1969.
- Brown, B. F. The appropriate placement school. West Nyack,
N. Y.: Parker, 1965.
- Bruner, J. S. The relevance of education. N. Y.: Norton, 1971.
- Burgoon, J. and Winter, J. Operating manual for a volunteer
talent pool. Winnetka, Ill.: Author, 1967.
- Burt, S. M. and Lessinger, L. M. Volunteer industry
involvement in public education. Lexington, Mass.:
Heath, 1970.
- Freund, J. A guide for co-ordinators of volunteers and
volunteer services in schools. Bethesda, Md.: ERIC
ED 031447, 1968.
- Glasser, J. F. The elementary school learning center for
independent study. West Nyack, N. Y.: Parker, 1971.
- Hall, D. W. The effects of school involvement on the
educational attitudes of community adults. (Doctoral
Dissertation, Northern Illinois University) Ann Arbor,
Mich: University microfilms, 1971, No. 71-18-549.
- Halliday, M. F. An investigation of parent attitudes in
relationship to community unrest. (Doctoral Disserta-
tion, Michigan State University) Ann Arbor, Mich.:
University microfilms, 1970, No. 71-18215.

- Kubie, L. S. Neurotic distortion of the creative process.
N. Y.: Noonday Press, 1967.
- Macdonald, J. B. Introduction. In J. R. Squire (Ed.)
A new look at progressive education. Washington, D. C.:
Association for Supervision and Curriculum Development, 1972.
- McQueen, M. Learning resource centers, research report,
Chicago, Ill.: Science Research Associates, 1969, (5-1414).
- Murphy, J. Middle schools. N. Y.: Educational Facilities
Laboratories, 1965.
- Nevins, J. B. A comparative evaluation of the curriculum
in an innovative and a traditional junior high school
based upon certain characteristics of student educational
and personal development. (Doctoral Dissertation, Texas
Tech University) Ann Arbor, Mich.: University microfilms;
1970; No. 71-9658.
- Plowman, D. What can be done for rural gifted children and
youth. In Gowan and Torrance (Ed.), Educating the ablest.
Itasca, Ill.: Peacock, 1971.
- Polk, C. H. An application of general systems theory to
program planning. (Doctoral Dissertation, North Carolina
State University), Ann Arbor, Mich.: University Microfilms,
1970, No. 71-10,296.
- Richardson, D. I. A study of in-service education practices
for open plan schools. (Doctoral Dissertation, University
of Tennessee) Ann Arbor, Mich.: University microfilms,
1970, No. 71-364.

- Rogers, C. Freedom to learn. Columbus, Ohio: Merrill Co. 1969.
- Teachey, W. G. and Carter J. Learning laboratories. Englewood Cliffs, New Jersey; Educational Technology, 1971.
- Toffler, A. Future shock. N. Y.: Random House, 1970.

Articles

- Alexander, W. M. What has happened to the middle school?
Bulletin of the National Association of Secondary School Principals, 1971, 355 (135-141).
- Barden, J. The student teacher interface. Educational Technology Research, 1971, 35 (1-36).
- Berridge, R. A process oriented community - Tipp City, Ohio.
Community Education Journal. 1, (3), 13-17.
- Blackman, N. The community as classroom. Bulletin of the National Association of Secondary School Principals. 1971, 355, (147-158).
- Christian, F. Southeastern regional conference. Community Education Journal. 1, (3), 49-50, 62-63.
- Filep, R. T. and Sales, T. Journey for relevance. Institute for Educational Development Study. El Segundo, Calif. 1970. 3. (1-68).
- Grinspoon, K. Children and adolescents as tutors; factors involved in using this technique. American Orthopsychiatric Association Newsletter. 1971, 15 (4-14).
- Hapgood, M. The open classroom: protect it from its friends.
Saturday Review. 1971, 54 (38).

- Havighurst, R. Work, leisure and education toward the goal of creating flexible life styles. The Gerontologist. 1969, 9 (4) 17-35.
- Hickey, H. Insights into the world of work. The Community School and its Administration. 1971, 9 (11), 1-4.
- Innes, T. C. Measurement, accountability and humaneness. Measurement and Evaluation in Guidance. 1971, 4 (2), 90-98.
- Johns, R. L. Toward equality in school finance. American Education. 1971, 7 (9) 3-6.
- Lum, L. A. They packaged concept 9. Audiovisual Instruction. 1971, 16, (8) 39-41.
- Lustig, M. W. Psychological implications for a new education. New Voices in Education, 1971, 1 (3), 19-21.
- Marland S. P. The condition of education in the nation. American Education 1971, 7 (3).
- Marland, S. P. Marland on career education. American Education. 1971, 7 (9) 25-28.
- Moorefield, Story. How Louisville put it all together. American Education, 1971, 7 (10) 30-34.
- Murray, Powers and Havighurst. Personal and situational factors producing flexible careers. The Gerontologist. 1971, 2 (4) 4-12.
- Palmer, G., and Jensen, O. Freedom to learn at Wilson Campus School. Today's Education, 1971, 60 (8), 47-48.

- Pfeiffer, E. and Davis, G. The use of leisure time in middle life. The Gerontologist. 1971, 2(3-1*) 187-195.
- Platt, J. Beyond freedom and dignity. The Center Magazine 1972, 5 (2), 34-53.
- Richardson, J. A. Winnetka's learning laboratory. Educational Leadership, 1966, 23 - 6, reprint.
- Sainer, J. and Zander, M. Guidelines for older person volunteers. The Gerontologist. 1971, 2 (3), 201-204.
- Samler, J. A second look at second careers. The Vocational Guidance Quarterly, 1971, 20 (2) 112-118.
- Seidel, J. Theories and strategies related to measurement in individualized instruction. Educational Technology, 1971, 11, (8), 40-47.
- Zirbel, E. Vocational education: where humanization works. National Association Secondary School Principals Bulletin. 1972, 361 (84-87).

Unpublished material

- Erickson, V. Vocational guidance at the elementary level. Unpublished bulletin, State of Illinois, Department of Vocational Education: 1971. (1-17).
- Goelzer, V. Volunteer pool of Highland Park. Unpublished reports. 1969, 70.

Other

- Ofiesh, G. Learning resource center Tape. Educational Technology, N. Y. 1970.

- Crookes, B. Bringing education into the seventies. Highland Park News, Highland Park, Ill.: Jan. 6, 1972.
- District 111 report. Highland Park News, Highland Park, Ill.; 47 (17) Sept. 9, 1971.
- Marland, S. Career education. Education Daily, 1972. 5 (3) 1-6.
- Poremba, C. Juvenile delinquency and learning disabilities. Fund for Perceptually Handicapped. Lecture, Winnetka, Ill., Nov. 10, 1971.
- Thompson, A. New hope for disordered adolescents. Fund for the Perceptually Handicapped Lecture, Winnetka, Ill. Dec. 1971.

Institute

- Bowman, T. R. The learning center. Science Research Associates. Inservice Institute. Glen Ellyn, Ill., Dec. 9, 10, 1970.
- Eichhorn, D. H. The emerging adolescent school of the future - now. Symposium; Association for supervision and Curriculum Development, Chicago Conference on Continuous Education, Oct., 1971.
- Goldiamond, I. Learning disabilities and operant behavior. Symposium presented by Michael Reese Hospital at the University of Chicago, Dec., 1971.
- Gurske, B. The learning center. Science Research Associates Inservice Institute, Oct. 1971 at Glen Ellyn, Ill.

High School students, and the implementation of change were major considerations. The problems of double messages, difficulties in learning, and projects relating to learning, leisure, labor and love were viewed as timely, explored in the literature and in varying degrees dealt with in the development of the Learning Center program.

Summary of Issues raised by the Literature

- a. What are appropriate objectives for a multimedia center?
- b. What constraints will limit the realization of goals?
- c. What objectives require postponement?
- d. What are the costs, staffing and staff roles implied?
- e. Is continuing responsiveness to change possible?
- f. To what extent will student needs be met?
- g. What are the double messages?
- h. If the four L's are valid goals, how can they be implemented?
- i. How can an effective volunteer program be accomplished?